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ABSTRACT

The plan provides guidelines to Colorado citizens for the implementation of four environmental education programs. The major emphasis of the plan is to stimulate and strengthen environmental education throughout Colorado by increasing communication, cooperation, and coordination among individuals and organizations. The following citizen-based action plans, together with their respective goals, have been proposed: 1) Colorado Environmental Education Council (CEEC) (to coordinate on a statewide basis all environmental education activities). 2) Environmental Education Resource Information Clearinghouse (to establish communications with groups and individuals, and to provide resource information, coordination, and technical assistance in environmental education planning); 3) Environmental Education Teacher Preparation Plan (to conduct in-service teacher training on environmental concepts); and 4) Media Involvement plan (to achieve wider utilization of TV, radio, and newspapers as a means for increasing the public's environmental awareness, concern, and commitment). Program needs, objectives, and design, and recommendations for implementation are provided for each plan. The proposed Constitution and by-Laws of the CEEC are also included in this document. A related document is ED 068 421. (RM)

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COLORADO ENVIRONMENTAL EDUCATION MASTER PLAN

media involvement
teacher preparation
resource clearinghouse
colorado environmental education council

JUNE, 1973
Supplement to the
COLORADO INTERIM MASTER PLAN FOR ENVIRONMENTAL EDUCATION

COLORADO ENVIRONMENTAL EDUCATION MASTER PLAN

Including plans for: Colorado Environmental Education Council
Environmental Education Teacher Preparation
Media Involvement in Environmental Education
Environmental Education Resource Information Clearinghouse

developed under
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Master Advisory Planning Council

June, 1973

coordinated by the

Center for Research & Education
2010 E. 17th Avenue; Denver, Colorado 80206
(303) 388-6311

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COLORADO MASTER PLAN FOR ENVIRONMENTAL EDUCATION

MASTER ADVISORY PLANNING COUNCIL
630 SHERMAN — DENVER, COLORADO 80203 — 573-6406

DR. RICHARD S. CASEBEER, CHAIRMAN
WALTER C. DICKERSON, PROJECT DIRECTOR

June 29, 1973

Mr. Walter Bogan, Director
Office of Environmental Education
U. S. Office of Education
400 Maryland, S. W.
Washington, D. C. 20202

Dear Mr. Bogan:

It is my pleasure to submit to you the Colorado Environmental Education Master Plan, developed under a grant from the U. S. Office of Education, Office of Environmental Education, during the past year.

This plan provides guidelines to the citizens of Colorado, working through public and private organizations, for the implementation of four environmental education programs. These programs were conceived and have been designed to meet the needs, goals, and recommendations outlined in the Colorado Interim Master Plan for Environmental Education. The interim plan was produced by the Master Advisory Planning Council in April 1972 and represents the input of over 650 Colorado citizens from all walks of life and from all sections of the state.

The recently formed Colorado Environmental Education Council, one of the four programs referred to above, will serve to initiate and coordinate the implementation of the other three programs. In this way, the citizens of Colorado will continue to accept primary responsibility for promoting and carrying out environmental education in the state.

We are grateful for the support that the Office of Environmental Education has provided to this project. As a result, environmental education enjoys a legitimacy in Colorado and a strong foundation for continued development that did not exist two years ago.

Sincerely,

Richard S. Casebeer

Richard S. Casebeer, Ph.D.

AN ENVIRONMENTAL EDUCATION PROJECT STAFFED BY
cre CENTER FOR RESEARCH AND EDUCATION — 2010 E. 17TH AVENUE — DENVER, COLORADO 80206
PHONE (303) 388-6311 CABLE: CREDEN

TABLE OF CONTENTS

	Page
Introduction	1
Proposed Constitution & By-laws for the Colorado Environmental Education Council	5
Plans for an Environmental Education Resource Information Clearinghouse	11
Plans for Teacher Preparation in Environmental Education	39
Plans for Media Involvement in Environmental Education	47

SOME OF US HAD BETTER CHOOSE TO DEFINE OURSELVES AS WORLD PROBLEM-SOLVERS IF WORLD PROBLEMS ARE GOING TO BE SOLVED...

We need a peculiar mix of pride and humility. We must work with people, but we must also trust our own judgment. In the end, things must make sense to me: there is nobody who can take me off the hook of making my own final decisions about meaningfulness.

We are in a crisis. We can continue to say that somebody else is going to solve our problems. The evidence is now clear that in reality nobody is going to solve our problems. Will we act to solve our own problems? The choice is ours.

- Robert Theobald
An Alternative Future for America II

INTRODUCTION

I. Second Year Summary

Four citizen-based action plans have been developed during the second phase of the Colorado Environmental Education Master Plan project. These plans are designed to meet the goals and recommendations of the Colorado Interim Master Plan for Environmental Education which was produced during the first year's activities.

Over 650 planning participants from all parts of Colorado provided input as to the problems and the need for environmental education in the state. From their input the goals and recommendations were formulated by the Master Advisory Planning Council and its staff.

In addition to development of the four specific plans outlined in this document, a major emphasis of this year's effort has been to stimulate and strengthen environmental education planning throughout Colorado. This has been accomplished by increasing communication, cooperation, and coordination among individuals and organizations involved in environmental education (hereafter referred to as EE), and by providing planning assistance to persons interested in initiating EE programs and activities.

As part of the effort to increase communication, cooperation, and coordination, a resource file was designed to facilitate the collection and dissemination of data on human, material and informational EE resources throughout the state. Responsibility for the continued expansion and dissemination of the information in the file will be assumed by the Colorado EE Council and the EE Resource Information Clearinghouse (see pg. 2). Requests for information from the file can be directed to the Council and the Clearinghouse through the Center for Research and Education; 2010 E. 17th Ave.; Denver 80206; phone (303) 388-6311.

II. The Planning Process

Citizen-based participatory planning has been employed throughout the project to maximize the chances for successful implementation of the plans. It has been the basic philosophy of this project that successful implementation of any plan is related directly to the degree of significant involvement in creation of the plan by those persons who will be most directly affected by it.

III. Implementation

In light of the planning philosophy stated above, the publication of these plans for EE in this document is secondary to the actual involvement of persons in the development of these plans.

The printing of these plans offers no guarantee to those of us who want EE that what they propose will be accomplished. The only guarantee that exists is the interest and commitment of those who have taken part in formulating these plans to carry them through to successful implementation. This will involve the commitment of our own resources, as a test of our convictions, in the transition from participative planning to participative doing.

IV. Summary of Document

A. Colorado Environmental Education Council (CEEC)

There is much happening in Colorado in EE. There are many activities and many resources already available. As already mentioned, a major emphasis in this year's effort has been to provide communication, cooperation and coordination among these persons and activities.

To meet this need for continuing the statewide coordination of EE, the Master Advisory Planning Council has voted to form an EE association to continue the citizen-based participation in a formalized structure.

Contacts were made during the year with the governor's office and with state legislators seeking state support to staff such a grassroots coordinating body. Considerable interest in EE was generated among state leaders and it is hoped that tangible, concrete support will be forthcoming soon to solidify the grassroots effort.

The proposed Constitution and By-laws for the Colorado Environmental Education Council are included in this document.

B. Environmental Education Resource Information Clearinghouse

The diversity and number of participants who assisted in the development of plans for an EE Resource Information Clearinghouse attested to the need for establishing a formal communication system by which all groups and individuals can share expertise and resources related to EE. Opportunities for involvement in shaping the plan were provided through a series of planning sessions held throughout the state and through continual dissemination of planning documents in various stages of development. Because of the broad range of people involved, the input of ideas, opinions and suggestions was extremely varied...in some cases, conflicting. Several guiding principles did emerge however, which were generally accepted by the total planning group:

1. The Clearinghouse should make efforts to establish communications with

all groups and not cater to the needs of a select few. Only in this way could EE hope to speak to the problems and concerns of the environment.

2. The Clearinghouse should reach actively into the community to provide resource information, coordination and technical assistance in planning.

3. The Clearinghouse should not duplicate the efforts of existing groups by becoming a repository of information and other resources but should identify and provide access to such sources.

4. Efforts should be made to seek the many facilities which already exist in the state for the operation of the Clearinghouse to provide them with whatever assistance may be needed to do the job, rather than creating a new organization.

The plan for the Clearinghouse represents the investment of time and creative resources of people who explored together and debated the pros and cons of issues surrounding the project. It also represents their frustrations in confronting each other's points-of-view and arriving at decisions which required flexibility of attitudes and beliefs. As a result, a plan has been formulated which may not be totally acceptable to all persons. More importantly, a strong foundation and direction for its implementation has been established.

C. Environmental Education Teacher Preparation

A growing number of people are realizing that the optimum time to emphasize EE principles is during childhood when children are formulating their personal values and attitudes. Thus there is growing support in Colorado for preparing teachers to incorporate environmental concepts within their particular areas of curricular expertise.

In-service workshops and university extension courses have been gaining in popularity with teachers and administrators. Most of these opportunities, however, have been limited to front range participants and have had little coordination. Nor has there been much effort to provide prospective teachers with EE concepts and approaches during their preservice collegiate training. In terms of overall numbers, relatively few Colorado teachers have yet had any kind of training in EE.

The Plan for Teacher Preparation has evolved from a number of teacher workshops on EE, from informal EE discussions with teachers and administrators, and from personal interviews with administrators, teachers, students, and teachers of teachers. A draft of the plan was circulated to nearly 100 persons for review and comment, and final refinement was obtained from a formal review session and many informal discussions.

The resultant plan points out that our educational system will need both active support within communities and the commitment of hard resources to assist the EE effort. This broad support and commitment is essential to achieving the goal of increasing the environmental literacy of future Colorado citizens and enabling them to make the kinds of decisions that environmental improvement demands.

D. Media Involvement

Citizens in Colorado have expressed consistently their belief that mass media, because of its tremendous influence on public attitudes, should be utilized more extensively to resolve the serious environmental problems with which our state is faced.

In seeking to learn more about the media the Master Plan staff discovered that many EE media opportunities exist now, but are relatively unknown to environmental(ists or educators) and to the general public. Staff also learned that media people, especially those in public affairs, are keenly interested in environmental programming. This is partially due to environmental concerns rating high on community surveys done in conjunction with licensing renewal. But it is also due to personal concerns of media people about environmental problems and their desire to help solve them professionally.

The Media Involvement Plan on Page 47 offers a variety of activities which were developed through interviews with media people and various interested citizens. This planning group believes that these activities can serve, directly or indirectly, to increase significantly the public's environmental awareness, concern and commitment. However, media people will need the support and assistance of a broad range of individuals to develop these plans to fruition.

COLORADO ENVIRONMENTAL EDUCATION COUNCIL

May 1973 Draft

PROPOSED CONSTITUTION

ARTICLE I - NAME

The name of this organization shall be the COLORADO ENVIRONMENTAL EDUCATION COUNCIL.

ARTICLE II - PURPOSE, OBJECTIVES, AND ACTIVITIES

The purpose of this organization shall be:

To promote and support Environmental Education in Colorado as a balanced, broad-based, multi-disciplinary effort through encouraging, planning, supporting, and conducting activities which are consistent with and in support of the Colorado Master Plan for Environmental Education.

In support of this purpose, the objectives of this Council shall be:

o To serve as a forum for the exchange and discussion of ideas and information about Environmental Education (EE) and EE activities;

o To facilitate communication, cooperation, and coordination among public and private agencies, groups, and individuals in planning and implementing EE activities in both formal and non-formal education;

o To provide a vehicle for all citizens of Colorado to speak with a common voice in support of EE and EE activities;

o To provide leadership for continued statewide planning for EE; and

o To provide broad-based support for and balanced viewpoints in the EE effort.

These objectives shall be met through such possible activities as:

o Publishing an EE Newsletter;

o Planning and conducting meetings and workshops;

o Implementing the EE Resource Clearinghouse;

o Reviewing and evaluating EE activities and proposals; and

o Seeking the participation in the Council and its activities of business and industry, educators, government agencies, labor, legislators, minorities, professionals, students, and other interested persons.

ARTICLE III - MEMBERSHIP

Membership in this Council shall be open to any person or organization interested in its purposes and activities.

ARTICLE IV - ORGANIZATIONAL STRUCTURE

Membership shall be held in the Council.

Members of the Council may form local Chapters for the purpose of planning and conducting local activities. Each local chapter shall be autonomous to write and adopt its own By-Laws consistent with this Constitution, to elect its own officers and/or governing body, to plan and conduct its own activities, and to raise and dispense its own funds.

Local Chapters shall make an annual report of activities and finances to the Council.

ARTICLE V - GOVERNING AUTHORITY

The governing authority of this Council shall be vested in a Steering Committee which shall be elected by the membership according to the rules and procedures set forth in the By-Laws of this Council.

ARTICLE VI - MEETINGS

This Council shall meet in plenary session at least annually for election of the Steering Committee, reports by the Steering Committee, and such other business as needs to come before the membership. Additional membership meetings may be called by the Steering Committee or by petition of the membership to the Steering Committee.

ARTICLE VII - AMENDMENTS

This constitution may be amended by a two-thirds (2/3) vote of the members present and voting, provided that the proposed amendment(s) and notice of the meeting have been submitted to the membership in writing at least thirty (30) days prior to the meeting in which said vote is taken.

Amendments may be proposed by the Steering Committee or by petition of the membership to the Steering Committee.

ARTICLE VII - INTERIM PROVISION

This Constitution shall be in force upon approval of two-thirds (2/3) of the persons present and voting at the organizational meeting of this Council. Upon approval of this Constitution a Provisional Steering Committee of seven persons shall be elected by plurality vote. All persons attending the organizational meeting shall be eligible for election to the Provisional Steering Committee. The Provisional Steering Committee shall elect from its membership Provisional Council Officers.

The Provisional Steering Committee and Provisional Council Officers shall serve until the first annual meeting.

PROPOSED BY-LAWS

ARTICLE I - MEMBERSHIP AND DUES

The Council shall consist of the following classes of individual and organizational memberships.

Regular Members. This class of membership shall be open to any individual and shall entitle the member to all rights and privileges of the organization as determined by the Steering Committee.
Annual dues for Regular Members shall be $5.00.

Student Members. This class of membership shall be open to any individual who is enrolled as a full-time student in any recognized educational institution and shall entitle the member to all rights and privileges of the organization as determined by the Steering Committee.
Annual dues for Student Members shall be $2.50.

Organizational Members. This class of membership shall be open to any non-profit organization and shall entitle the member organization, through its representatives, to five units of privilege as determined by the Steering Committee.
Annual dues for Organizational Members shall be $25.00.

Sponsoring Members. This class of membership shall be open to any institution, business, or industry and shall entitle the member organization to such rights and privileges as shall be determined by the Steering Committee.
Annual dues for Sponsoring Members shall be $100.00.

The membership year shall be July 1 to June 30.

Members who shall join the Council within thirty (30) days of establishment of the organization shall be designated Charter Members of the Council.

ARTICLE II - STEERING COMMITTEE

The Steering Committee shall consist of the elected officers of the organization plus seven members elected at-large to represent the various interest groups and geographic areas of the membership.
The Steering Committee shall meet at least quarterly in open session. A simple majority of the Steering Committee shall constitute a quorum.
The President of the Council shall serve as Chairman of the Steering Committee.

ARTICLE III - OFFICERS

The officers of the Council shall be a President, Vice-President, Secretary, and Treasurer.

The President shall preside at all meetings of the Council and Steering Committee; be an ex-officio member of all committees; be the official representative of and spokesman for the Council; co-sign all checks and promissory notes of the Council; determine dates of all Council and Steering Committee meetings, with approval of the Steering Committee.

The Vice-President shall assume the duties of the President in the event of his absence or disability; perform duties as requested by the President.

The Secretary shall be responsible for the minutes of all Council and Steering Committee meetings; handle the correspondence of the Council; be responsible for membership mailings; be in charge of all official records (other than financial) and the corporate seal of the Council, should there be one; be the official historian of the Council; maintain a separate record of policy statements passed by the Council.

The Treasurer shall be responsible for handling all funds and financial records of the Council; co-sign all checks and promissory notes with the President; provide a financial report at all Council meetings, and at Steering Committee meetings on request; make available for inspection all financial records to the general membership on reasonable request; deliver to the Steering Committee all records and responsibilities of said office at the change of officers that they might be validated and delivered to the new officer.

ARTICLE IV - TERM AND TENURE

All officers shall serve a one-year term and shall be eligible for re-election to no more than two consecutive terms. Steering Committee members shall serve two-year terms and shall be eligible for re-election to no more than two consecutive terms. In the first election, the three Steering Committee members-at-large receiving the fewest votes shall serve one-year terms.

Officers and Steering Committee members-at-large shall take office at the close of the meeting in which they are elected.

Vacancies shall be filled by appointment of the Steering Committee until the next regular election.

ARTICLE V - NOMINATIONS AND ELECTIONS

A Nominating Committee shall be appointed from the membership of the Council by the President with the approval of a majority of the Steering Committee by August 1 of each year.

The Nominating Committee shall present a slate of candidates to the membership in writing not less than fifteen (15) nor more than thirty (30) days prior to the election. Candidates must have agreed in writing to serve if elected. Nominations may be made from the floor by the membership prior to the election, provided that the candidate has agreed in writing to serve.

Elections shall be at the Annual Meeting of the Council by a plurality of the members present and voting. Election shall be by secret ballot if there is more than one candidate for any position on the ballot.

ARTICLE VI - COMMITTEES

Committees shall be appointed by the Steering Committee as needed, unless otherwise provided in these By-Laws.

ARTICLE VII - MEETINGS

The Annual Meeting of the Council shall be held in September or October of each year.

Quorum for Annual and Special Meetings of the Council shall be ten per cent (10%) of the membership.

ARTICLE VIII - FISCAL YEAR

The Fiscal Year shall be from July 1 to June 30.

ARTICLE IX - ADMINISTRATION

When warranted, the Steering Committee shall have the authority to establish offices, or make whatever other arrangements are necessary for administering the affairs of the Council.

ARTICLE X - PETITIONS

A petition from the membership to the Steering Committee must bear the signatures of at least five per cent (5%) of the members of the Council.

ARTICLE XI - PARLIAMENTARY AUTHORITY

Roberts' Rules of Order (Revised) shall be the Parliamentary Authority for all meetings of the Council and Steering Committee.

ARTICLE XII - NOT-FOR-PROFIT ORGANIZATION

No compensation or payment shall ever be made to any member or officer of this organization, except as a reasonable allowance for actual expenditures or services actually rendered to the organization, nor shall any part or portion of the assets or earnings of this organization ever be distributed to or divided among any members or private individuals.

Upon the dissolution of this organization the Steering Committee shall dispose of all assets remaining exclusively for the purposes of this organization or of organizations organized for charitable, educational, religious, or scientific purposes.

ARTICLE XIII - CHANGES TO THE BY-LAWS

These By-Laws may be changed by a majority vote of the members present and voting at an Annual or Special Meeting of the Council. Changes may be proposed by the Steering Committee or by petition of the membership to the Steering Committee. The proposed changes must be circulated to the membership in writing at least thirty (30) days prior to the meeting.

ENVIRONMENTAL EDUCATION RESOURCE INFORMATION CLEARINGHOUSE

I. STATEMENT OF THE PROBLEMS

A. General Public

Within the Denver Metropolitan Area and within Colorado, the environmental education effort is confronted with:

1. A citizenry which does not avail itself of the environmental education opportunities that exist to acquire the information and experience needed to make environmentally based decisions. Possible reasons for this are: apathy, crisis orientation, or awareness of the entire problem and resultant unwillingness to accept incomplete information and narrow, short-range decisions.

2. Substantial segments of the population who don't see the relevance of environmental education to the solution of our most pressing problems.

3. A number of people who now would like to learn more about our relationship to our environment but do not know how best to learn more or channel their interest effectively into action. This might include organizations which are interested and have available resources that are potentially valuable for environmental education.

B. Environmental Educators

1. Many schools and non-formal educational groups do not now develop skills in citizens to make decisions based on consideration of the total environment. Some, though interested, do not have the resources (human and material) to develop programs. Others are either not interested or simply do not recognize that environmental education is a viable alternative.

2. For those desiring to initiate and improve on existing environmental education programs, the system for acquiring information and assistance on design, implementation and evaluation of environmental education programs is still inadequate.

3. Because school districts in Colorado are completely autonomous, they are also often isolated. There is limited systematic sharing of information about what each of them is doing.

C. Resource Groups

1. There is a tendency on the part of environmentalists not to see the relationship between environmental problems and other pressing human problems such as poverty, food production, economic development, institutional adjustment, technology, etc. Rather, environmental problems are usually presented in conflict with other human goals.

2. There are a fairly large number of resource persons in the state who have expertise in the content areas of environmental education but they seldom come together. The existing system for putting these individuals in touch with each other to pool resources and initiate environmental action is limited and inadequate.

3. Action organizations which have relevant information often need aid in getting it to the specific people who want it.

   Other organizations which have developed educational innovations also feel the lack of an efficient way to advertise and disseminate them to those that want them.

D. Legislators

State legislators would agree that environmental education is necessary but traditionally environmental education has received little or no attention in the legislature. A combination of circumstances is possibly responsible:

1. Legislators are largely preoccupied with other traditional state problems and don't see environmental education as a priority.

2. The demand for environmental education from the citizenry is fragmented.

3. Most legislators probably haven't had much direct experience with environmental education and don't recognize its value.

4. Some legislators may associate environmental education with the demands of many environmental action groups and don't see its potential for dealing with the total environment.

E. Clearinghouses

1. Many existing national clearinghouses have the capability of collecting and storing environmental education resource information, and retrieving and disseminating it on demand. However, this valuable service still remains unused by many local groups who may not be aware of its existence or know how to use it for their purposes.

   It is difficult for such a clearinghouse to actively reach out to such groups to apply its services since it cannot maintain close communication with every local community or group.

   As a result, the difficulties that these groups face in determining what resources exist locally, how best to channel interest or combine efforts and how to gain personal assistance to develop and improve on programs cannot usually be met by such a clearinghouse.

2. In Colorado, much of the environmental information and resource referral function is being assumed by the various action-oriented environmental organizations around the state as an adjunct to their primary purpose. Because most of these organizations have a specific focus, the information to which they have access is understandably limited to one or a few aspects of the environment.

   This limitation of scope as well as resources makes it extremely difficult for these groups to provide the comprehensive service and follow-up required to meet the needs that exist in the community.

   Also, due to limited resources or competition, it is very difficult for these groups to establish and maintain constant communication with each other toward coordinating their services and information. Because of these limitations, these organizations find that many times they are not equipped to either handle a request personally or to make a referral to an appropriate organization that could handle the request.

II. STATEMENT OF NEEDS

A. General Needs

The existence of these conditions reveals the need for a viable and continuous means for facilitating the development of new environmental education programs and strengthening those that already exist by:

1. pooling and channeling existent environmental education resources, assistance and information to those who need it,

2. promoting the value of environmental education so that people will become involved and support it, and

3. encouraging the formulation of environmental education opportunities or programs around a basic theory which integrates various facets of human behavior, rather than segregating goals for the physical environment from other human goals, i.e., social, economic, etc.

B. Interim Master Plan Needs

The following statements of need from the April 1972 Colorado Interim Master Plan for Environmental Education expand on the above:

NEED: Availability of information that deals with:

1. Accurate environmental data which presents all sides of particular

environmental issues, such as:

a. the broad range of environmental problems, as well as the various viewpoints different people have toward them;

b. the economic, political and social impact of environmental problems as well as of potential solutions;

c. existent and proposed environmental legislation;

d. future environmental conditions and possible alternative societal and individual life-styles.

2. Environmental and ecological concepts and principles which are concise and easily understood by the general public.

3. Environmental education resources (reference and curriculum materials, consultants, speakers, organizations, etc.) for all types of audiences.

4. The nature and scope of the activities of persons, groups and agencies working on environmental problems.

5. Environmental education programs now in existence or planned, including workshops and training programs, in both the formal and non-formal spheres. (From the Interim Master Plan, page 19.)

NEED: To improve communication, cooperation and coordination among the various private and public entities working in environmental education in Colorado. (From the Interim Master Plan, page 18.)

NEED: Mechanisms designed to encourage and assist the various individuals, groups, organizations and agencies involved in environmental protection and environmental education to assume specific roles and responsibilities as part of the statewide effort to promote and coordinate environmental education endeavors. (From the Interim Master Plan, page 22.)

III. PROGRAM RATIONALE

A. Program Introduction

Our efforts toward the resolution of the above-stated problems and needs are in part described by the following Interim Master Plan recommendation:

"Planning be done to establish a central source(s) for the collection and dissemination of environmental information, educational materials and other supportive services." (From page 31.)

This "central source" (herein called Clearinghouse), however, should not be limited to the singular, passive role possibly implied here, but rather should have a broader role which can be described as: Outreach, Information Retrieval and Dissemination, Coordination, and Technical Assistance. These roles or component areas are distinct but interdependent.

B. Specific Program Needs

The following is a description of the specific needs to be met and how they relate to these four program components:

1. Outreach

a. Both the public and resource groups, in some cases, need to be made aware of the potential that environmental education has for training people ultimately to make decisions and act on the broad range of problems that affect their lives. A community outreach component which promotes the nature and value of environmental education as an educational alternative that is relevant to community needs is necessary.

b. Both the public and resource groups need to have access to information on the status (needs, goals, resources, etc.) of various individuals' and organizations' efforts in environmental education and environmental action. A community outreach component which actively maintains two-way communication and contact with a broad range of community groups and agencies to keep abreast of developments as they occur is necessary. The information which results becomes input for the information system for dissemination, referral and coordination. This outreach enables the information system to maintain an access-to-access capability, i.e., the capability of directing clients to the source(s) of information and other services.

c. The public must know what Clearinghouse services are available to it before it can employ them or decide that they are relevant to their needs. For this reason an outreach component, which publicizes the activities of the Clearinghouse and helps people apply them, is necessary. By the same token, the Clearinghouse must be constantly aware through this outreach component, of the ever-changing needs of the community-at-large, and be able to evaluate its own effectiveness in serving those needs.

d. Legislators must be convinced that environmental education is worthwhile and important. They will come to this conviction if:

(1) they themselves understand what environmental education is and what it can do, and

(2) they can see evidence that it has the support of and is

demanded by a large segment of the population.

An active outreach component which publicizes the value of environmental education and maintains two-way communication with its constituency can meet these needs.

2. Information Retrieval/Dissemination

The public and resource groups need access to a broad range of resource information on the environment and environmental education. (See the Interim Master Plan for types of information.) School districts also need access to similar information:

a. A continual update on environmental education issues around the state (air, water, land, etc.).

b. The state of the art of curriculum development in school systems locally, regionally and nationally.

c. A continual update on environmental education courses, workshops and conferences conducted by various agencies, organizations and institutions of higher learning.

d. A continual update on environmental education materials produced by a variety of agencies and organizations.

e. Access to an information bank that would focus specifically on Colorado's environmental problems, for use by students who are involved in in-depth studies of these issues.

3. Coordination

a. A system of communication and referral is needed between citizens who seek information and resources and agencies who have such services to offer the public. Through the coordination component which has the support of a community resource information system:

(1) organizations or individuals who cite need for specific information or assistance can be matched with known resources that are capable and willing to provide assistance, and

(2) the programs of resource groups can be extended to more people who may be interested in providing them with support.

b. Resource groups involved in planning or implementing environmental education activities need to maximize the effectiveness of limited environmental education resources by avoiding duplication of effort of other groups, pooling resources with them toward a common effort or at least sharing common experiences.

Through the coordination component, groups can be made aware of and put in contact with each other.

c. There is a need for groups planning environmental education activities to broaden the scope of their program content to consider the total environment. Through the coordination component dialog can be established with members of diverse and sometimes conflicting groups to combine resources with them and gain their participation and input in planning.

d. There is a need to provide assistance to those resource groups who have information and expertise in specific content areas but who receive requests for services that they cannot handle on a broad range of topics. Through the coordination component these agencies can refer these requests to a central source so that they can be channelled to appropriate resources.

4. Technical Assistance

Groups that are beginning or those that are already interested and involved in environmental education may need assistance in planning and/or improving the overall design of their programs. Access to a technical assistance resource pool which provides guidance in such things as needs assessment, goal setting, evaluation, integrating a concept of total environment and how to creatively apply existing resources is needed.

IV. PROGRAM DESIGN

A. General Goal

In light of the overall needs expressed, the general, long-term goal of the Clearinghouse will be:

To stimulate and facilitate the continuing development of environmental education in Colorado by providing support to those involved in such activities through four interrelated sub-programs or components: Community Outreach, Coordination, Technical Assistance, and Information Retrieval/Dissemination.

B. Component Goals, Objectives, Activities and Outcomes

The goals, objectives, activities and outcomes of each of these components are as follows:

1. Outreach

a. First goal: to facilitate the utilization of Clearinghouse services by a broad range of communities and groups.

(1) Objectives

(a) To publicize (advertise) the Clearinghouse and its services so that it gains exposure among groups and communities of diverse geographic regions and interests.

This objective will be attained by the following activities:

i. Continually identifying and contacting groups and communities which represent a broad range of geographical and environmental interests (e.g., socio-economic development, formal/non-formal education, conservation of natural resources, etc.) to introduce the Clearinghouse to them.

ii. In-person presentations to both those groups that request them and those sought out by the Clearinghouse, explaining the services of the Clearinghouse and how they can be useful.

iii. Advertising the Clearinghouse through the statewide and local mass media (newspaper articles, public service announcements, spots, interviews, etc.)

iv. Printing and disseminating pamphlets or brochures about the Clearinghouse and its services.

(b) To establish and maintain two-way channels of communication between communities and groups and the Clearinghouse.

This objective will be attained by the following activities:

i. Identifying and contacting a broad range of community groups to solicit their participation as contributors and users of the Clearinghouse.

ii. Designating local groups within communities around the state as branches of the central Clearinghouse so that local people will have easier access to the Clearinghouse.

iii. Securing the assistance of one person in participating agencies and assigning him with the responsibility of liaison between his agency and the Clearinghouse.

iv. Employing a standardized system of categorizing and filing resource information in branches and participating agencies for the easy flow of information to and from the central Clearinghouse.

v. Periodically contacting both users and contributors of the system and following up on its effectiveness in transferring services.

(2) Outcomes

Expected outcomes for objectives (a) and (b) above are as follows:

i. Steady increase in the number of written, telephone and personal requests to the Clearinghouse for information and assistance.

ii. Use of Clearinghouse services by people from all interests and backgrounds, all socio-economic levels and all regions of the state.

iii. Feedback regarding the effectiveness of the communication system.

iv. Transfer of services and information to and from the Clearinghouse and participating agencies.

b. Second goal: to assure that the Clearinghouse is informed of the existing problems, needs and environmental education resources within communities and groups around the state.

(1) Objectives

(a) Same as Objective (b) of First Goal for Outreach, page 12.

(b) To periodically assess the problems and needs existing in a broad range of communities.

This objective will be attained by the following activity:

Conducting formal needs assessment surveys in those communities that request them and those sought out by the Clearinghouse.

(c) To actively inventory environmental education resources, especially when this information does not come in automatically through two-way communication systems.

This objective will be attained by the following activities:

i. Mailing resource inventory forms to organizations for which there is no information.

ii. Visiting such organizations to gain first-hand information on the availability of resources.

iii. Document results of i and ii for input into information system.

(2) Outcomes

Expected outcomes for objectives (a), (b) and (c) above are as follows:

(a) Periodically updated listing of needs, problems and resources.

(b) Access to types of information described in Needs section.

c. Third goal: to assure that the services of the Clearinghouse are directed to the environmental education needs of communities and organizations.

(1) Objectives

(a) Same as Objective (b), First goal for Outreadh.

(b) Same as Objective (b), Second goal for Outreach.

(c) To include public participation in the planning and implementation of Clearinghouse activities.

This objective will be attained by the following activities:

i. Forming citizen review boards (Planning and Advisory Boards) at all of the branches and at the central level of the Clearinghouse.

ii. Following up on requests for services to determine their effectiveness.

(2) Outcomes

Expected outcomes for Objectives (a), (b) and (c) above are as follows:

i. Feedback from users of the Clearinghouse as to its effectiveness, suggestions for modification, etc.

ii. Plan for Clearinghouse programs which are guided by and have the approval of those who will receive them.

iii. Requests from increasing numbers of people for Clearinghouse services.

iv. Evidence that communities have successfully met their needs through collaboration with the Clearinghouse, e.g., programs under way.

v. Probable occasional modifications in the services of the Clearinghouse.

d. Fourth goal: to assure that communities and organizations will see the relevance of environmental education to their problems, needs and goals related to improving the quality of life.

(1) Objectives

(a) To promote the value of environmental education in terms of its potential for training people to make decisions and act on the broad range of problems that affect their lifes.

This objective will be attained by the following activities:

i. Identifying groups and communities, through the information

system activities, who express an interest in learning about EE.

ii. Preparing and making presentations to communities and groups, illustrating that environmental education encompasses man's relationship to the natural world, to the man-made world, to his fellow man and to himself, and should, therefore, be the concern of everyone.

iii. Carrying out special efforts to introduce the concept of environmental education to minority groups, rural citizens and others who might be alienated by the environmental movement.

iv. Meeting with political and community leaders across the state in hopes of convincing them of the need for environmental education and gaining their support.

(b) To demonstrate how the goals of environmental education can be made relevant to the problems and needs of a particular group or community.

This objective will be attained by the following activities:

i. Identifying and analyzing with communities and groups their problems and needs.

ii. Providing examples of environmental education projects or activities carried out in communities with similar problems.

iii. Providing alternative suggestions as to how a particular community might become involved in environmental education and how they might benefit by such an involvement.

(2) Outcomes

Expected outcomes for objectives (a) and (b) are as follows:

i. Decisions or policies which demonstrate a commitment to put resources into developing and implementing environmental education activities.

ii. Requests from communities or groups for information about or assistance in developing environmental education activities.

iii. Increased public awareness and acceptance of differing ways of looking at the environment and environmental problems.

e. Fifth goal: to gauge the level of support and demand for environmental education in the state.

(1) Objectives

(a) To provide a profile of the state of the art and the extent

to which environmental education has increased in the state.

This objective will be attained by the following activities:

i. Using Clearinghouse records and results of evaluations to determine: to what extent requests for information and assistance have increased, and the range of groups involved and the scope of activities in operation.

ii. Using Clearinghouse records to determine to what extent support (commitment of resources) has increased.

iii. Polling public knowledge of existence of environmental education, opinions of its effectiveness and desire to become involved.

(b) To provide a projection of future demand for environmental education and the support that will be needed to meet the demand.

This objective will be attained by activities i, ii, and iii as above under objective (a).

(2) Outcomes

Expected outcomes for Objectives (a) and (b) above are periodic reports on the scope of environmental education activities in the state.

2. Information Retrieval/Dissemination

a. First goal: to provide the citizen of Colorado with access to a broad range of information on environmental and environmental education resources.

(1) Objectives

(a) To provide access at the local level to environmental education resources in any part of the state.

This objective will be attained by the following activities:

i. establishing a network of local Clearinghouse branches which are coordinated by a central Clearinghouse.

ii. designing and employing a standard information filing and retrieval system based on the ERIC descriptor/identifier system in the branch and central Clearinghouses.

iii. designing and conducting training workshops for Clearinghouse personnel in the use of the system.

(b) To pool information on the human and material resources and needs that exist among participating organizations at the local and state level.

This objective will be attained by the following activities:

i. employing outreach activities to establish communication for the flow of resource information into the Clearinghouse.

ii. maintaining a file of information on local resources and needs at the branch level of the Clearinghouse for use by citizens.

iii. maintaining a composite state file on all resource information collected by branches at a central Clearinghouse.

(c) To make appropriate information available to citizens.

This objective will be attained by the following activities:

i. responding to daily requests for environmental education resource information by discussing with clients the nature of their needs and retrieving the appropriate information from the resource file.

ii. making special efforts to locate resources for clients when no record of such resources exists on file by contacting other branches, central Clearinghouse or outside sources (ERIC).

iii. disseminating information on resources through the use of a periodic newsletter, as well as when requests are made.

iv. following up on requests to assure that they have been satisfactorily met.

b. Second goal: to provide the Advisory and Planning Boards with data which they can use as the basis for Clearinghouse evaluation and statewide coordination and planning.

(1) Objectives

(a) Objective b, First goal of Information Retrieval/Dissemination.

(b) To make available a profile of the daily transactions of the Clearinghouse.

This objective will be attained by the following activities:

i. keeping records of all requests made to the Clearinghouse for resource information, with descriptions of Clearinghouse service and client feedback on that service.

ii. compiling records into monthly Clearinghouse reports which indicate the scope of Clearinghouse activities and make recommendations for future Clearinghouse modifications.

iii. listing new resource information acquired by the Clearinghouse.

3. Coordination

a. First goal: to maximize the impact and effectiveness of

environmental education resources in Colorado.

(1) Objectives

(a) To facilitate the use of resources by those who need them.

This objective will be attained by the following activities:

i. interviewing clients who seek resource information to determine the nature of a specific request. i.e., the type of resource or Clearinghouse service needed and why it is needed.

ii. selecting possible resources (human or material) from resource information system that would meet the need.

iii. establishing contact between need and resource (provide information on resource, schedule appointment for meeting, be present at meeting, etc.)

(b) To avoid waste of resources and duplication of effort.

This objective will be attained by the following activities:

i. assisting groups to identify resources within their community, region or state to support their efforts.

ii. providing lists and descriptions of such resources.

iii. putting groups with similar needs and goals in contact with each other, if possible.

iv. encouraging and assisting them to pool resources toward common effort.

v. encouraging groups with past experience in a specific area of environmental education to share the benefit of that experience with other groups currently involved.

(2) Outcomes

Expected outcomes of Objectives (a) and (b) above are as follows:

i. evidence of collaboration between need and resource.

ii. evidence of collaboration among otherwise competing groups.

b. Second goal: to assure that a broad scope of needs and viewpoints are represented in environmental education planning.

(1) Objectives

(a) To encourage and facilitate joint planning of environmental education programs among a variety of interest and geographic groups.

This objective will be attained by the following activities:

i. periodically analyzing reports of Clearinghouse staff to determine areas of possible inter- and intra-group

coordination.

ii. selecting and contacting groups representing various disciplines and interests to come together.

iii. designing and conducting planning workshops throughout the state to gain the input of these groups on needs, goals, etc.

(b) To catalyze environmental education activity in areas where there is little or no environmental education planning.

This objective will be attained by the following activities:

i. periodically analyzing reports of Clearinghouse staff to determine where little or no environmental education activity exists.

ii. contacting and bringing together similar interest groups (e.g., minority groups, agriculture, etc.)

iii. designing and conducting workshops to collect information on why there is no involvement in environmental education, the desirability and value of environmental education for them, and directions for future planning of environmental education programs within their communities.

iv. Same as iii under Objective (a) above.

(2) Outcomes

Expected outcomes of Objectives (a) and (b) above are as follows:

i. inter-community and inter-group dialog and cooperation in planning and conducting environmental education programs.

ii. evidence of joint planning for regional or statewide environmental education programs.

iii. written documentation of environmental education planning and implementation, i.e., minutes of meetings, needs assessment, etc.

4. Technical Assistance

a. First goal: to expand and improve the impact of environmental education activities.

(1) Objectives

(a) To provide guidance and direction in goal-referenced and participative planning.

This objective will be attained by the following activities:

i. responding to daily requests for assistance in environmental education by providing access to technical assistance resources in the state.

ii. using staff reports to determine areas where statewide or regional environmental education planning should be done.

iii. assigning responsibility to a technical assistance agency to work with groups by:

providing a structure and mechanism for generating and providing data on problems and needs.

in consultation with client, using the above data to construct goals and objectives that are measurable.

directing client to preassess to what extent these goals and objectives have or have not been met.

suggesting a set of alternative strategies to meet the objectives for the client to choose from.

suggesting resources that would be appropriate and helping client to apply them.

following up to assist client to periodically assess the achievement of goals and objectives.

applying coordination function to involve broad base of citizens in planning.

(b) To provide guidance and direction to groups in broadening the scope and content of their environmental education programs to include consideration of various aspects of environment.

This objective will be attained by activities i-iii of Objective (a) above to provide technical assistance in:

- o integrating the following concepts of man's relationship to his environment in environmental education programs: man to himself, man to other men, man to the natural world, man to the man-made world.
- o applying coordination function to bring together broad range of people to make input into plan.

C. Program Implementation

1. Preliminary Implementation Activities

Various preliminary steps must be taken to make the formation and operation of the Clearinghouse possible.

These steps are:

a. Finalize the organization of the Colorado Environmental Education Council and formally constitute it as the administrator of the Clearinghouse.

b. Identify and meet with qualified groups in the state to solicit their commitment to participate in and provide resources for the establishment and operation of the Clearinghouse. Memoranda of Agreement will be sought from these groups which detail the

specifics of their commitment in relation to the Clearinghouse functions and to the following steps c-g of this section.

c. Establish locations and necessary program resources and staffing for the branch and central Clearinghouses in existing facilities throughout the state.

d. Design a system for the storage and retrieval of environmental education resource information that is based on the ERIC Information System descriptor-identifier format. In this way the resources collected by ERIC can be used to meet Colorado needs. The system should be designed in such a way that the information can be retrieved through both manual and computer search techniques. Two reasons for requiring this flexibility exist:

(1) It is expected that computer capability will be required at the central Clearinghouse level while manual search will be employed at all branches.

(2) If the use of a computer is not initially available, manual search will necessarily have to be used at all levels.

e. Conduct large-scale public relations campaign to publicize the Clearinghouse program and solicit the support and participation of public and private entities throughout the state. More specifically, this campaign will seek to convince people of the value of the program for them, solicit their commitment of resources necessary for the operation of the Clearinghouse, and request their close cooperation with the Clearinghouse as a participating agency, whereby they accept the responsibility of periodically providing input on the environmental education resources that they have available for public use. This campaign can be carried on through the production and dissemination of Clearinghouse brochures and whenever possible presentations by Clearinghouse representatives to groups.

f. Design and conduct training workshops for staff of Clearinghouse and of participating resource agencies along the following lines:

(1) The region and state and their existing public and private resource agencies.

(2) The Clearinghouse itself: the reasons for its existence, special features of its service.

(3) The system of information handling to be employed.

(4) Interview techniques.

g. Carry out resource information collection activities among participating agencies so that a basic resource data file can be built and the Clearinghouse can begin to operate.

2. Organizational Structure, Roles, Responsibilities and Resources

a. Administrative Roles and Responsibilities

The Colorado Environmental Education Resource Information

Clearinghouse will be a project of the Colorado Environmental Education Council (CEEC). The EE Council, which is in the process of formation, is the successor to the Master Advisory Planning Council (MAPC), the citizen body which was awarded the USOE grants that made planning for projects such as the Clearinghouse possible.

The CEEC will be responsible for the administration of the total project, contracting with existing qualified organizations for the implementation of various aspects of the project whenever necessary. The CEEC will be responsible for procuring support for the Clearinghouse both through activities of its membership and the in-kind contributions of public and private entities throughout the state. Submission of proposals to funding sources for additional support, will also be the responsibility of the CEEC. All grant monies secured through these activities will, therefore, be administered by the Council.

b. Program Structure

To achieve the broad statewide coverage that is required, a network of Clearinghouses will be established to operate at two levels: at the regional level through several branch Clearinghouses, and at the state level through a central Clearinghouse.

Branches will be established throughout the state to make the services of the Clearinghouse accessible to citizens at the local and regional levels. Attempts will be made to house the branches in already-existing facilities that have resources that can be allocated to the Clearinghouse operations.

The number and location will depend on such things as the availability of already-existing facilities, the level of activity and interest in environmental education, the number of people to be served in an area, etc.

Each branch will maintain a staff that is comprised of both professional and volunteer workers. The professional staff member will have major responsibility for the implementation of the information retrieval/dissemination activities of the branch. (For a description of these and other branch activities, see Section d below.) He or she will also be responsible for supervising the volunteer workers who will carry out the community outreach activities and assist in information retrieval/dissemination.

It is hoped that sufficient qualified professional personnel can be drawn from the already-existing staffs of the agencies where the branches will be located. Volunteer staff members will be recruited from the various public service organizations that exist throughout the state.

Each branch will have a Planning and Advisory Board which will consist of representatives from the following entities:

(1) Local organization of the Colorado Environmental Education

Council.

(2) A broad range of participating agencies which are both contributors and users of the Clearinghouse.

(3) Public and private organizations which provide technical assistance in planning and education.

(4) Communities served by the Clearinghouse.

One central Clearinghouse will be established in the state as a coordinative and support body for the branches. As with the branches, the location of the central Clearinghouse will depend on the location of already-existing facilities. Staffing patterns will also be similar to that of the branches. The Planning and Advisory Board of the central Clearinghouse will consist of representatives from:

(1) the state organization of the CEEC, and

(2) the branch Clearinghouse Planning and Advisory Boards.

c. Program Roles and Functions

(1) Roles of Branch and Central Clearinghouse

The Branch Clearinghouses will provide their respective regions of the state with a location where EE resource information retrieval/dissemination and a variety of supporting outreach activities will be conducted. Their most essential purpose will be to establish and maintain channels of communication with public and private groups so that the input, access and delivery of information on environmental education resources will be possible on a daily basis.

The central Clearinghouse will support the individual branches' efforts by providing a link for the sharing of resource information among them and access to the additional resources of the national ERIC information system.

(2) Input of Resource Information

Information on the following kinds of environmental education resources will be sought as input to the Clearinghouse retrieval/dissemination system:

(a) Organizations and their environmental education-related programs and activities.

(b) Environmental education information sources, e.g., studies made by various groups on particular environmental problems.

(c) Human resources, e.g., speakers, consultants.

(d) Instructional resources, e.g., curriculum guides, audio-visual presentations, simulation exercises, publications.

(e) Physical resources, e.g., transportation, equipment, facilities, study sites, centers.

In each case, a description of the resource will be sought and and other pertinent data such as its source and terms of availability.

This information will be acquired from the various public and private entities throughout the state where such resources are located and available for public use. These participants will include such agencies as Keep Colorado Beautiful, U.S. Forest Service, The League of Women Voters, institutions of higher education and chambers of commerce.

To acquire the data, each branch Clearinghouse will establish communication with these agencies, seeking their cooperation in keeping the Clearinghouse informed of their activities, services and needs. They will be both contributors and users of the Clearinghouses. Responsibility for inventorying agency resources and recording and submitting the data to the branch Clearinghouse should be assumed by the agencies themselves. They will be encouraged to assign these tasks to a staff person (or, in the case of a volunteer organization, a member) whose position provides him or her with familiarity with and access to information on that agency's resources. Clearinghouse representatives would be available to provide agency liaisons with assistance in carrying out these activities whenever necessary. If sufficient agency staff does not exist to take on these responsibilities, Clearinghouse representatives would be provided to collect the resource data periodically from the agency. In the event that the system is computerized, printouts of the agencies' input could be furnished to them for their own use and for correcting and updating information in the Clearinghouse system.

As the resource information is submitted to the branch Clearinghouses, it will be transferred from standard data input sheets (used by agency liaisons) to file cards, and then stored in the branch's cross-indexed data file. In this way regional files of environmental education resources will be maintained throughout the state. Copies of branch Clearinghouse file cards will also be sent to the central Clearinghouse so that the information collected in all branches can be compiled into a state file. Again, in the event that the system is computerized, branches will be provided with printouts of their holdings to supplement their files.

(3) Delivery of Resource Information

The establishment and maintenance of such a system of communication between the Clearinghouse and participating agencies will continually furnish the Clearinghouse with a resource data base which can be used daily to provide people who need environmental education resources with information on where they can get them. The branch Clearinghouses will be the point of contact where the requests for such information will be received. As requests come in to the branch, personnel will be on hand

to interview the client to determine the background and other specifics surrounding the need. This interviewing procedure is very important for these reasons:

(a) Sufficient understanding of the need must be gained so that appropriate resource information can be retrieved to meet the need.

(b) In cases where the request must be referred to another branch of the Clearinghouse, the intent of the request must be clearly and comprehensively communicated.

(c) Users of the information service may have new information on other resources that could be included in the Clearinghouse data bank.

(d) Records of client requests will be kept and used as basis of planning activities of other groups. The more comprehensive the data, the more useful it will be for planning.

It is anticipated that the nature of requests will vary widely both in terms of the kinds of resources needed and their location in the state.

While some requests will be of a local or regional nature and can be handled from the branch file, others will require access to information on resources that exist in another region (or other regions) in the state. An example of the latter may be: a planner for a statewide environmental conference, seeking the participation of a broad range of citizens, needs the names of key people throughout the state that he can contact for assistance in identifying and recruiting such citizens.

At the same time, requests will differ depending on the kind of resource needed, that is, requests for:

(a) Information on a specific resource, such as teacher preparation workshops, curriculum guides for junior high school.

(b) Identification of and contact with other groups toward coordination of efforts.

(c) In-depth technical assistance in beginning or improving an environmental education activity.

All of these types of requests can be handled by the Clearinghouse because:

(a) Each branch Clearinghouse will have access to the information pool of every other branch, as well as of the central Clearinghouse. If a request is made to a branch for resource information from another part of the state, the request is sent to the branch which operates in that area. Requests of of a statewide nature (as in the example of the conference planner) would be forwarded by the branch to the central Clearinghouse. In both cases, the branch that received the request would take full responsibility for making the referral, securing the information, and delivering it to the client.

(b) Information can be retrieved from the system through both subject (descriptors) and location (identifiers), i.e., city, organization, or interest group indexes. In the example of the teacher preparation workshops, therefore, lists of such activities can be easily provided for any part of the state, with descriptions of each activity and other pertinent information such as: name of person to contact, address, schedules, cost, etc. In a similar case involving a request for monographic material, the same service could be provided and if desired, attempts to obtain copies could be made.

In the case of requests for assistance in coordinating efforts with other groups, a search of the data bank could provide information on groups who are involved in similar, complementary or even contradictory activities. The Clearinghouse would hope to stimulate not only inter- but intra-group dialog by providing pertinent resource information on a broad range of groups. Again, listings of these groups, with brief descriptions of the nature of their activity, would be provided so that contact could be established with them. In the event that its resources became sufficient, the Clearinghouse could play a more active role in working to bring such groups together by making contacts, setting up meetings, and assisting groups to identify areas of possible coordination.

This coordination activity is important enough to justify that staff personnel check all incoming requests (whether explicitly for coordination or not) for possibilities of combining efforts and resources with other groups.

In cases where inquiries involve the need for technical assistance in beginning or improving on existing environmental education programs, the Clearinghouse would attempt to make referrals to agencies who have expertise in such areas. Preliminary efforts will be made by the Clearinghouse to establish contact with such technical assistance resources, in the hope that they will comprise a resource pool that the Clearinghouse can tap for such requests.

Once the information is delivered, attempts will be made to follow up on the requests to find out:

i. if the Clearinghouse service has been effective in assisting the client to resolve his needs, and

ii. if the resource agencies have been responsive to the client, and if not, why not.

This can be achieved through the use of an evaluation form which would be sent to each client to solicit their comments on these questions.

The full details of each Clearinghouse transaction with clients will be recorded by the staff. These records will

include information on the details of the request acquired through interviewing the client, Clearinghouse attempts to provide resource information or other services and subsequent feedback on the services received from the client. From these records monthly reports will be compiled by the staff which indicate the scope of Clearinghouse activity and the extent to which all requests have or have not been satisfactorily met. These findings will not only serve to measure the success or failure of the Clearinghouse in achieving its outcomes for evaluation purposes, but they will also be useful as a basis for determining future activities for improving and expanding the services of the branches. Another important use of these staff reports which will be discussed in more detail in the following section will be as a basis for the statewide planning and coordination activities of the Clearinghouse Planning and Advisory Boards.

(4) Roles of Clearinghouse Planning and Advisory Boards

The existence of the aforementioned system for communication and resource information retrieval/dissemination will in itself constitute a valuable resource for statewide planning and coordination of environmental education programs and activities. To assure that this resource will be used in this way, as well as for meeting the daily information needs of people, the following activities will be conducted:

Each branch will hold periodic meetings of its Planning and Advisory Board. The role of these boards will be to provide guidance and direction to:

- o the branches in conducting their daily operations, and
- o state planning and coordination efforts for environmental education.

They will fulfill this role by:

(a) reviewing and analyzing the branch Clearinghouse reports and recommendations;

(b) using reports, work with Clearinghouse staff to evaluate Clearinghouse effectiveness in achieving outcomes and formulate decisions for modification or expansion of activities;

(c) using reports, determine such things as:

i. areas where coordination of environmental education activities should be stimulated;

ii. overall trends in need for EE activities and programs that would constitute a focus for planning;

iii. areas where there is an absence of EE activities and/or resources, so that measures can be taken to stimulate their development.

Once this has been done, the Board should take measures to assure that some action is taken on its findings and recommendations.

This might be done by assigning responsibility for active follow-up to members of the Board who represent organizations which could appropriately take on the task. In the event that this were not possible, the Board would identify and contact outside agencies to solicit their cooperation and involvement. In either case, the Board would be available to work with and support such groups in all their efforts.

Some of these follow-up activities may include:

(a) Conducting a variety of workshops to meet needs for assistance in planning and implementation of programs and activities.

(b) Conducting special activities to promote and gain support for the Clearinghouse and environmental education such as: meeting with state political leaders, drafting legislation or proposals for funding, holding environmental education fairs or workshops.

(c) Contacting and bringing groups together to share information, expertise and other resources.

(d) Conducting public opinion polls and surveys to test level of awareness and areas of need in environmental education.

In addition to these activities, the Boards, working together with the staff, will be responsible for various public relations and information activities:

(a) The publication of a Clearinghouse newsletter as part of the Colorado Environmental Education Council (CEEC) newsletter.

(b) Making presentations to groups and communities on environmental education and the Clearinghouse. This may be supplemented by the production of a promotional audio-visual presentation.

(c) Promotion of the Clearinghouse and environmental education through the mass media.

A member of each branch Board would be assigned to serve on the Central Clearinghouse Planning and Advisory Board. This group will meet as needed and will serve to provide communication and coordination for the regional activities of the branches. They will duplicate the functions of the branches but from a statewide perspective. An additional function will be to produce yearly reports on the state of the art of environmental education with recommendations for future environmental education activities and programs.

d. Resources Needed for Implementation

(1) Development of Information Retrieval System

- o Technical assistance from individuals with expertise in ERIC information system.
- o Technical assistance to design and conduct workshops to train Clearinghouse and agency personnel in implementation of information system.

(2) Activities of Branches and Central Clearinghouse

- o Staff - Sufficient professional and volunteer personnel to carry out activities described for Clearinghouse.

  Time and cooperation of agency personnel in inventorying their resources and maintaining contact with the Clearinghouse.
- o Office Space - In areas throughout the state to house branches and central Clearinghouse.
- o Office Supplies and Equipment - Typewriters, filing cabinets, desks, paper supplies, etc.
- o Reproduction Supplies and Equipment - Use of Xerox machine and supplies, etc.
- o Mechanisms for Inter-Clearinghouse and Clearinghouse-Community Communications - Telephones, teletype, computer terminals, etc.
- o Computer Time and Service for storage and retrieval, keypunch, manpower, printouts, etc.
- o Access to ERIC Information System Resources and other resource pools.
- o Mailing supplies and postage.
- o Informal commitment of technical assistance from educational and planning agencies to form resource pool to receive referrals from the Clearinghouse.

(3) Planning and Advisory Boards

(a) General Resources

- o Time and involvement of broad range of community and agency resources to carry out responsibilities of Boards.
- o Travel resources, especially for Central Clearinghouse Board members.

(b) Public Information Activities of Boards

- o Technical assistance from public relations experts to plan campaign.
- o Technical assistance, equipment and supplies for production of audio-visual presentations on Clearinghouse and environmental education.
- o Speakers and discussion leaders to make presentations on Clearinghouse and environmental education.
- o Involvement and cooperation of community leaders to interest and organize their constituencies for Clearinghouse presentations and involvement.

- o Public and private agency mailings to inform about and endorse the Clearinghouse.
- o Time in workshop schedules and expenses to make Clearinghouse presentations.
- o Coverage of Clearinghouse and EE activities by mass media news and editorial staffs.
- o Opportunities to promote Clearinghouse activities on public interest shows (TV and radio).
- o Technical assistance, equipment and supplies for production of TV and radio spots.
- o Technical assistance, equipment and supplies for printing of Clearinghouse promotional brochures.

(c) Follow-up Activities of Boards

- o Technical assistance and facilities for designing and conducting workshops.
- o Assistance of professional lobbyist.

3. Recommendations

It is recommended that:

a. The CEEC, upon the completion of its organization, begin the implementation of the Clearinghouse project as its first priority.

b. The initial focus for implementation of the Clearinghouse be placed on the completion of the steps outlined in Section IV, C., p. 20, Preliminary Implementation Activities.

c. The CEEC with the following agencies continue to explore the possibility of jointly assuming responsibility for the operations of the Clearinghouse in these ways:

(1) The ERIC Clearinghouse for Social Studies/Social Science Education (ERIC/CHESS) and the Northern Colorado Educational Board of Cooperative Services (NCEBOCS): staff assistance and necessary resources to design the Clearinghouse Environmental Education Resource Information System compatible with the ERIC descriptor/identifier format.

(2) ERIC/CHESS and the Center for Research and Education (CRE): staff assistance and resources necessary to design and conduct training workshop for Clearinghouse professional, volunteer and agency liaison staff members in the use of the information system.

(3) Colorado State Library Reference Network Centers (Public Libraries in Greeley, Colorado Springs, Pueblo, Durango, Montrose, Grand Junction, New Castle and Denver [Specifically the Conservation Library]): office space and facilities, professional staff, teletype communication system for the location and operation of the Branch Clearinghouses.

(4) Bibliographical Center for Research, which administers the Reference Network (above): same resources as for branches, to serve as the central Clearinghouse for coordination and communication of branches in cooperation with

(5) NCEBOCS: staff time for development and maintenance of computer program, use of computer facilities for storage of EE Resource Data Bank, access to resources of ERIC Information System.

(6) League of Women Voters, Federation of Women's Clubs, Consortium of Higher Education: volunteer workers to staff branches and central Clearinghouse.

(7) Center for Research and Education, Consortium of Higher Education, Colorado Department of Education, League of Women Voters, Boards of Cooperative Educational Services, University of Colorado Environmental Council: technical assistance personnel for resource pool to which requests to Clearinghouse for assistance in planning and conducting EE activities can be referred.

TEACHER PREPARATION FOR ENVIRONMENTAL EDUCATION

Introduction

Two recent citizen-based environmental reports address the need for environmental education to be more actively promoted in Colorado's formal educational system. One of them, the Colorado Interim Master Plan for Environmental Education, April 1972, has expressed a need for "training in both content and methodology for those engaged in planning, implementing, and evaluating environmental education efforts in both the formal and non-formal educational spheres." It recommends "that every school district and institution of higher learning in Colorado take steps to determine and act on changes that are needed in curriculum, administration, etc., so that they can more effectively meet their obligation in promoting environmental education." In a similar vein, Recommendation #4 of Colorado: Options for the Future, the final report of the Colorado Environmental Commission, March 1972, reads, "Every public and private school district, and every public and private institution of higher learning in the state appoint an environmental committee to study its curriculum, research, and administration and make recommendations for change to meet future environmental and ecological requirements." With these recommendations in mind, the following attempts to address the need for teacher preparation for environmental education.

I. State of the Art

A number of good opportunities for teacher preparation currently exist in Colorado in both the formal and non-formal educational sectors. Among them are the environmental education courses offered through the Extension Divisions of UNC, CSU and CU Denver Center; workshops conducted by the U. S. Forest Service; the Mountain View Center on the Environment and the Environmental Studies Group in Boulder; the Colorado Outdoor Learning Center in Florissant near Colorado Springs; and the Science/Environmental Supervisors of certain school districts. A summer workshop is being offered jointly by Western State College and the National Park Service. On occasion, training activities are offered by the Colorado Outward Bound School, The Center for Research and Education, and Arrow Management Systems, Inc. Individuals such as Jack Seilhammer from SCSC and Bob Lewis from Aspen receive numerous requests to present their teacher training workshops.

Many colleges in Colorado offer environmental and environmental education courses on the undergraduate level for preparing future teachers. Among these are CU, UNC, CSU, SCSC, and Western State. Adams State College in Alamosa offers a major or minor in Environmental Science as well as individual courses.

II. Problems in Teacher Preparation

A. Current teacher preparation activities in Colorado are relatively scattered and uncoordinated:

1. Those planning and conducting teacher training activities are often not aware of other activities and consequently may be competing for attendance or may be duplicating programs.

2. The effectiveness of existing activities is not maximized because they are not planned in such a way that they can complement one another.

3. Nearly all training opportunities that currently exist are available only on the Front Range, which tends to reinforce the present situation of relatively few environmental activities in West Slope and Eastern Colorado schools.

4. The training workshops that are offered on the Front Range are generally filled very rapidly with relatively little outreach and publicity, sometimes even before the workshop is announced publicly.

B. Many teachers who are doing, or are interested in doing environmental education, are, or feel, ineffective because they face too many constraints that hinder implementing what they have learned in environmental training activities:

1. They often feel alone and isolated, lacking support from their administrations, from their peers, and from their communities. Very few schools in Colorado have made commitments to integrate environmental education into their curricula, often because few administrators, teachers, school boards and parents understand what environmental education really is. Many still equate environmental education with Outdoor Education, Nature Study, camping or wilderness survival. As such it is seen as the exclusive domain of science and biology rather than something that can become an integral part of and give contemporary relevance to all disciplines--social studies, history, mathematics, art, and other non-science as well as science courses.

2. Other constraints teachers encounter are the internal problems faced by most teachers and administrators today--budgetary restrictions, competing priorities, heavy workloads, over-sized classes, accountability requirements and endless meetings. In light of such day-to-day problems, few are inclined to get involved in yet another activity which in itself demands a large commitment of time and energy, especially when few schools allow released time or reduced workloads for teachers interested in environmental education training, development of curricula, setting up team-teaching endeavors or involvement in other related environmental education activities.

3. At the classroom level teachers face difficulty translating what they learn in workshops into their daily classroom teaching. The

team-teaching, problem-solving, outside-the-classroom, interdisciplinary, curriculum-development emphasis of much environmental education training is foreign to many school systems which are strapped for funds and locked into traditional educational philosophy and methodology. Follow-up from the workshops and technical assistance to help teachers in the classroom apply what they have learned is lacking.

4. Many who are involved in environmental education events have difficulty translating interdisciplinary approaches to their classroom situations, or they have difficulty translating ideas into actual classroom activities. They often feel that training doesn't meet their immediate needs in the classroom and is impractical.

5. Teachers get the impression from some workshops that they can do environmental education only out of doors and they don't know what they can do with environmental education in the classroom.

6. Community people do not know how to be effective in non-formal education. And they have not been involved in planning teacher training events to meet their needs.

7. Teachers are unaware of and often do not know how to use community resources.

C. Current environmental education teacher preparation activities are reaching only those relatively few teachers who are already committed to environmental education.

1. Part of the problem is that few understand environmental education fully and are unaware of the many ways in which it can be taught. Others, who are already interested, have not been introduced to basic information, skills, and availability of existing community resources.

2. Some feel inadequate and afraid to attempt something new. Others are simply uninterested, too busy already with other concerns. Some feel environmental education is the exclusive realm of "experts" and can be done only by "specialists."

3. Some have been "turned off" to environmental education by environmental zealots and view environmental education as an extremist activity. Others equate environmental education with outdoor recreation or biological sciences and beyond their scope.

D. Teachers of teachers, those involved in pre-service education, have also expressed feelings of isolation and lack of support.

1. They feel that their efforts to provide future teachers with backgrounds in environmental education are hampered by lack of

recognition for environmental fields of study by state board certification, and by general public apathy in supporting environmental education.

2. Institutions of higher education receive little or no feedback from teachers in the field as to the adequacy and usefulness of their training in EE.

E. There is currently little or no follow-up on teacher training workshops to reinforce and to evaluate the effectiveness of what was learned.

III. Needs

The existence of these problems shows the need for the following:

A. Increased environmental education training activities for administrators, teachers, and citizens in number, in scope of content and process, and in outreach of geographic location.

B. Strong support for environmental education at all levels within the educational system from the State Board of Education to local school districts and non-public schools.

C. Strong citizen support for environmental education to promote environmental education at the local level and to coordinate environmental education activities on a statewide level.

D. Access by teachers to organizations and persons who would be able to contribute in concrete ways toward implementation and extension of EE programs.

E. Follow-up on teacher training programs to reinforce what was learned and to evaluate its effectiveness.

F. Goals and mechanisms for evaluation of teacher training activities.

IV. Recommended Goals and Activities

A. To provide statewide coordination of teacher preparation activities in both formal and non-formal sectors by:

Forming an Environmental Education Association to serve as a statewide focal point and advocate for environmental education in Colorado, both at the formal and non-formal educational levels. Such an association, like the local environmental and education committees, should be made up of a broad cross-section of interests and backgrounds including classroom teachers and school administrators, environmental and governmental agency personnel, businessmen, community leaders and others. Among its formal education responsibilities should be:

1. Backing up and assisting local environmental education committees, e.g., information, planning assistance, materials, coordination.

2. Coordination of the efforts of people, groups and institutions involved in pre-service and in-service environmental education teacher training and environmental education training for the general public so as to expand the number and the scope of training activities currently available.

3. Promoting and assisting in the use of the Colorado Interim Master Plan for Environmental Education as a planning guide for environmental education endeavors in Colorado.

4. Organizing meetings of teachers, administrators, resource people and others interested in environmental education to share each other's experiences, accomplishments and frustrations in getting environmental education into schools.

5. Publishing an Environmental Education Newsletter and/or making arrangements with the Colorado Education Association to include environmental education information in that organization's newsletter.

6. Encouraging collegiate offerings of environmental education coursework and methodology, including the eventual establishment of environmental education majors and/or minors.

7. Encouraging the State Board of Education to set minimum environmental education course requirements for teacher certification in Colorado.

8. Supporting the introduction and passage of environmental education legislation through the Colorado legislature.

B. To promote and support teacher preparation for environmental education within the education system by:

1. Giving the Environmental Education Office within the Colorado Department of Education adequate funding and status within the Department to effectively encourage and support environmental education activities, including the carrying out of teacher training and technical assistance functions across the state.

2. Every school district and all BOCES that are able employing or designating an environmental education coordinator to encourage, help plan, and provide support for environmental education in member schools. Where funding is not available to employ a full-time environmental education coordinator, the District Social Studies Supervisors might assume these responsibilities.

3. The State Board and Colorado Department of Education establishing a schedule of requirements for training in environmental education for all elementary and secondary teachers.

4. State Board and Colorado Department of Education recognizing environmental education as an approved course of study for future elementary and secondary teachers.

C. To provide community support to environmental education in the schools and for teacher preparation activities, both formal and non-formal, by:

1. Establishing Environmental Education Committees in communities where there is active interest. The membership of such committees should be representative of a broad cross-section of interests and viewpoints found within each community. These committees should "sell" environmental education to their Boards of Education and to their communities, develop and carry out strategies to overcome problems standing in the way of environmental education, assist in the development of goals, objectives, operating structures and evaluation of environmental education programs, serve as liaisons with statewide environmental education groups, and in other ways serve as the focal points for environmental education in their communities.

2. The Colorado Environmental Education Council implementing the EE Resource Clearinghouse.

D. To strengthen teacher training activities by:

1. Using the newsletter (CEEC) for feedback communication on classroom effectiveness of teacher training.

2. Institutions of higher education creating evaluation projects for graduate students.

3. Teacher trainers developing follow-up activities to their workshops.

4. Teacher trainers developing alternate training models such as a seminar series.

E. Make pre-service EE more attractive by:

Using the Sanborn model of four-day intensive workshops rather than having EE dragged out over a whole semester.

V. Participants in Teacher Preparation for Environmental Education

Below is a list, though far from complete, of individuals who have worked with the master planning group in the area of teacher training.

Quentin Baker, St. Vrain Valley Schools, Longmont, 776-9179
Charles Botanelli, Hamilton Jr. H. S., Denver, 755-1267
Ed Butterfield, Aurora Public Schools, 364-5593
Richard Casebeer, NCEBOCS, Longmont, 772-4420
Doug DeGroote, Univ. of Denver, 753-1964
George Ek, Colo. Dept. of Education, Denver, 892-2242
William Featherstone, Natl. Park Service, Denver, 837-4502
Royce Forsythe, Balarat Environmental Center, Denver, 266-2254
Ron Greenwald, U. S. Forest Service, Denver, 234-4185
Chuck Holtzer, Environmental Education Consultant, Denver, 466-7756
James LaVelle, Southern Colo. St. Coll., Pueblo, 549-2280
Glenn McGlathery, Univ. of Colo. Denver Center, 892-1117
Larry McKown, Jefferson County Schools, Lakewood, 279-3346
Kenneth Olson, Univ. of Northern Colo., Greeley, 351-2598
Nancy Pardee, Mitchell H. S., Colo. Spgs, 596-2330
Mary Ratz, Thorne Ecological Institute, Boulder, 443-7325
Charles Reser, El Paso County School Dist. #11, 633-8773
Paul Richard, Univ. of Northern Colo. Lab. School, Greeley, 351-2745
Jack Seilhammer, Southern Colo. St. Coll., Pueblo, 549-2280
Owen Smith, Poudre R-1 Schools, Ft. Collins, 482-7420
Dan Van Gorp, Cherry Creek H. S., Denver, 771-3562
Norm Von Osten, Euclid Jr. H. S., Denver, 794-6341
Kaytee Webster, Moore Elem. School, Denver, 623-3204
Karen Wiley, Social Science Curric. Consortium, Boulder, 443-1370
Richard Winternitz, Coronado H. S., Colo. Spgs, 471-8790
James Wright, Denver Public Schools, 266-2255

MEDIA INVOLVEMENT IN ENVIRONMENTAL EDUCATION

Introduction

Successful resolution of Colorado's environmental problems is ultimately dependent upon the public's willingness to support the political, social and economic policies that will be required to maintain a quality living environment. Schools bear a tremendous portion of this responsibility by preparing future decision-makers to opt for these kinds of choices. At the same time, effective ways must be devised to environmentally educate the adult community -- the people who, through the sum of their individual and collective decisions, are now determining the type of conditions in which today's young people will be living in the future. In nearly all the meetings held across the state last year to gather data for the Colorado Interim Master Plan for Environmental Education, a great deal of discussion focused on the tremendous impact that media, especially television, has upon public attitudes and decisions. Because of this influence, a high priority recommendation was made by the more than 600 people involved in the planning process that radio, television, and newspapers be "more extensively and more effectively utilized for environmental awareness and education." This paper is an attempt to outline a plan to meet this need.

I. Current Situation

Extensive media coverage of Colorado's environmental problems is in a large part responsible for the growing interest and concern of the general public about environmental deterioration. Generally speaking, media has done and continues to do an excellent job of describing and documenting the many local, national and worldwide problems with which we are confronted. But now, in addition to problem description, there is a growing need to deal with potential solutions to these problems. What will be their economic, social and political trade-offs and overall impact? How can we deal with the values, attitudes and life-styles that are at the root of most environmental problems? This is the kind of information and educational background that the public needs if it is to make rational environmental decisions. Therefore, it is hoped that the various media will begin to deal more effectively with these difficult questions. Successful resolution of environmental problems may well depend upon it.

II. Constraints on Getting Environmental Education Into Media

A. Media activities focus predominantly on the exciting, dramatic, startling, "newsworthy" aspects of life. They do so because the public wants this kind of information, not because media people themselves necessarily want to emphasize this kind of coverage. Many of them, in fact, do not. They would like to see more attention given to the development of innovative ways of providing information, education and general awareness which might help prevent future "startling" and "dramatic" occurrences and events from occurring. But audience competition is keen and if a station or paper is to be successful it must fulfill public demand.

B. A specific criticism often made of TV environmental programs or specials is that they tend to be dull, repetitive and/or promote a doomsday vision of the future. It is also alleged that most environmental programs primarily attract an audience of the "already converted." Critics also charge that not enough effort is given to opening channels of two-way communication between media and the audiences that it serves.

C. A problem that results from dealing with an area as emotional and subjective as environment is that of balanced coverage. Those whose vested or emotional interests are challenged are quick to charge media with biased reporting. In most cases, however, comprehensive information covering all sides of particular issues is simply not available, at least from a central source. Nor are media resources generally sufficient to allow for extended, in-depth investigations.

D. Another problem has to do with the word "environment" itself: it is impossible to adequately define. It can only be described. This is because each individual's perception of environment is different, dependent upon such variables as his particular experiences, values, and socio-economic position in life. The environmental issues that are generally referred to in media presentations are urban middle class concerns like air and water pollution, wilderness, billboards, open space, land use, wildlife. Although most people would accept such issues as legitimate environmental concerns, a significant percentage of the public would not consider them to be <u>their</u> environmental priorities, e.g., the most pressing environmental problems referred to by poor people and minorities are jobs, housing, health care and discrimination; laborers point to a healthy work environment as first on their list; to rural people the problems of urban migration, low economic base and water diversion are environmental priorities; to the elderly, rent increases, health care and social alienation are the most important problems in their environment; and so on. Until these kinds of issues are included in the category of "environmental problems" the people whom they affect will likely continue to charge the environmental movement as being "middle class," "elitist," "cop-out" and "extremist."

III. <u>Goals</u>

The primary goal is to achieve wider utilization of TV, radio and newspapers as a means for providing all segments of Colorado citizenry with the kinds of information that will encourage and assist them in making environmentally-sound decisions. Fulfillment of the following sub-goals will help achieve the primary goal:

A. To encourage media people to see themselves as educators as well as reporters,

B. To make media people aware of the scope, process and content of the term "environmental education,"

C. To establish better communications between media representatives and environmentally-concerned community people,

D. To provide media people in charge of environmental programs, articles, newscasts, etc., with information covering all sides of the issues with which they are dealing, and

E. To devise methods of incorporating environmental education concepts into non-environmental TV programs and/or develop innovative environmental programs that are entertaining as well as educational, thereby appealing to larger viewing audiences.

IV. Recommendations and Activities

A. Establish a forum whereby both media representatives and community people interested in the increased involvement of media in environmental education efforts meet periodically to discuss such things as highly recommended environmental education films and publications, who is doing what in the environmental movement, how to make optimum use of public affairs programming and public service announcements, possible roles and responsibilities of media in environmental education, etc. The idea that interested persons might meet informally once a month for a brown-bag get together was received most enthusiastically at a recent media meeting. Someone should definitely take the initiative to organize this. (Potential invitees are listed below.)

B. More extensive use of public affairs programs and public service announcements for environmental education purposes. Excellent possibilities are currently available for the asking. But people with ideas must take the initiative to make contact with the Public Affairs Directors (listed below) of the various TV and radio stations.

C. Establish a Colorado Environmental Education Clearinghouse which would, among other things, provide media people with access to information and resources which would assist them in improving and broadening their environmental education activities. Andrea Rossiter and Kay Collins are two people who are involved in planning for such a Clearinghouse.

D. Call news conferences when something environmentally newsworthy comes up. Also, personally invite media people to cover and/or participate in environmental education events such as outdoor teacher training workshops; school-based projects; environmental displays, fairs, and teach-ins; new advances in environmental technology; etc. Initial face-to-face contact with media people is essential to establishing credibility with them for future requests.

E. Establish a Colorado Environmental News Service in order to make environmental information regularly available to the state's weekly newspapers as well as the various dailies. Buie Seawell of ROMCOE in Denver and Henry Lansford of NCAR in Boulder have many ideas about this.

F. Encourage newscasters to cover environmental education activities in the "general interest" final portion of their daily news programs, thereby reaching many who would not ordinarily tune in to strictly environmental programs. Such coverage will occur only if there is encouragement from community groups and individuals to do so.

G. Investigate the feasibility of conducting a TV-based community or regional environmental education project such as was done by the Puget Sound Action Coalition in Seattle, Washington. Dave Thomas, currently of Salt Lake City, phone: (801) 364-2511 was the coordinator of the Puget Sound project.

H. Share ideas with Chris Curtis, Environmental Producer for Denver's educational TV station, KRMA Channel 6, about the kinds of things that Channel 6 might carry pertaining to environmental education.

I. Eller Outdoor Advertising, owners of Channel 9, are currently devoting quite a bit of their outdoor advertising space to Public Service announcements. Gross and "un-environmental" as it is, such advertising is effective and promises to be around for many more years. Environmentally-related announcements might be considered.

V. People Interested in EE Media Involvement

Below is a list of people, with whom the master planning group has worked to date, interested in increased involvement of the media in environmental education. This is not meant to be a complete listing of people interested in environmental education through the media, but it is useful as a beginning.

Ms. Kay Collins, Denver Public Library, 573-5152
Mr. Chris Curtis, Environmental Producer, KRMA-TV, Denver, 572-8218
Mr. Frank DeSciose, Tri-County Health, Denver, 761-1340
Mr. Walt Dickerson, Environ. Ed. Master Plan, Denver, 377-6491
Mr. Greg Guinan, Public Affairs Dir., KWGN-TV, Denver, 222-9525
Mr. Bryce Hamilton, Environ. Ed. Master Plan, Denver, 623-3180
Ms. Anne Handley, Public Affairs Dir., KOA-TV, Denver 244-4141
Mr. George Hawkins, News Dept., KMGH-TV, Denver, 292-3456
Mr. Henry Lansford, Nat'l Center for Atmos. Research, Boulder, 494-5151
Mr. Tony Larsen, Public Affairs Dir., KOSI Radio, Denver, 343-1430
Ms. Dee MacLeod, KLZ Radio, Denver, 292-3456
Ms. Mardi McKinley, Public Affairs Dir., KBTV, Denver, 266-3601
Ms. Georgeanne Ross, Public Affairs Dir., KHOW Radio, Denver, 266-2611
Ms. Andrea Rossiter, Environ. Ed. Master Plan, Denver, 222-4493
Mr. Buie Seawell, Rocky Mtn. Center for the Environ., Denver, 757-5439
Mr. Rick Speed, Environmental Action, Denver, 534-1602
Mr. Morey Wolfson, Environmental Action, Denver, 534-1602